

CLAIMS

1. Nucleic acid fragment, characterized in
that it comprises a nucleic acid sequence encoding
5 thanatin.

2. Nucleic acid fragment according to claim 1, characterized in that it is a DNA-type nucleotide sequence.

3. Nucleic acid fragment according to claim
10 2, characterized in that the DNA-type nucleotide
sequence comprises the DNA sequence described by the
sequence identifier No. 1 (SEQ ID NO 1), a homologous
sequence or a sequence complementary to the said
sequence.

15 4. Nucleic acid fragment according to claim
3, characterized in that the DNA-type nucleotide
sequence comprises the DNA sequence described by the
sequence identifier No. 2 (SEQ ID NO 2), a homologous
sequence or a sequence complementary to the said
20 sequence.

5. Nucleic acid fragment according to ~~one~~^{claim} of ~~claims 1 to 4~~, characterized in that it comprises a nucleic acid sequence fused in 5' and/or in 3' to the sequence encoding thanatin, so as to obtain a "protein-thanatin" fusion protein.

6. Nucleic acid fragment according to claim 5, characterized in that the protein is a signal peptide or a transit peptide.

7. Nucleic acid fragment according to claim 5 6, characterized in that the signal peptide is the signal peptide of the tobacco PR-1a gene.

8. Nucleic acid fragment according to claim 7, characterized in that it comprises the DNA sequence described by the sequence identifier No. 5 (SEQ ID NO 5), a homologous sequence or a sequence complementary to the said sequence.

9. Nucleic acid fragment according to claim 8, characterized in that it comprises the coding part of SEQ ID NO 5, corresponding to bases 12 to 164.

10. Fusion protein "protein-thanatin", characterized in that the protein is a signal peptide or a transit peptide.

11. Fusion protein according to claim 10, characterized in that the signal peptide is the signal peptide of the tobacco PR-1a gene.

12. Fusion protein according to claim 11, characterized in that it is described by the sequence identifier No. 5 (SEQ ID NO 5).

13. Chimeric gene comprising a coding sequence as well as heterologous regulatory elements at the 5' and 3' positions which can function in a host organism, in particular plants, characterized in that

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18. Vector according to claim 16,
20 characterized in that it is a plasmid.

19. Transformed host organisms,
characterized in that they contain an effective
quantity of a chimeric gene according to ^{claim 13} ~~claims 13 to~~
~~15.~~

25 20. Transformed host organism according to
claim 19, characterized in that it consists of plant
cells or plants.

21. Transformed host organism according to claim 20, characterized in that it is a plant containing transformed cells.

22. Host organism according to claim 21, characterized in that the plant is regenerated from transformed cells.

23. Transformed plant cell, characterized in that it contains a nucleic acid fragment according to ~~claims 1 to 9, or a chimeric gene according to claims 13 to 15.~~ ^{claim 1}

24. Transformed plant resistant to diseases, characterized in that it comprises at least one transformed plant cell according to claim 23.

25. Transformed plant according to claim 24, characterized in that it is resistant to diseases caused by *Cercospora*, in particular *Cercospora beticola*, *Cladosporium*, in particular *Cladosporium herbarum*, *Fusarium*, in particular *Fusarium culmorum* or *Fusarium graminearum* or by *Phytophthora*, in particular *Phytophthora cinnamomi*.

26. Disease-resistant transformed plant, characterized in that it is derived from the cultivation and/or crossing of plants according to either of claims 24 and 25.

27. Seeds of transformed plants according to ~~one of claims 24 to 26.~~

28. Method of transforming host organisms, in particular plant cells or plants, characterized in

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that at least one nucleic acid fragment according to ^{claim 1} ~~claims 1 to 9~~ or a chimeric gene according to one of ~~claims 13 to 15~~ is inserted into the said host organism.

5 29. Method of transforming plants to make them resistant to fungal or bacterial diseases, characterized in that at least one nucleic acid fragment according to ^{claim 1} ~~claims 1 to 9~~ or a chimeric gene ~~according to claims 13 to 15~~ is inserted into the
10 plant.

30. Method according to ^{claim 28} ~~either of claims 28 and 29~~, characterized in that the chimeric gene is inserted by means of a vector according to ~~one of claims 16 to 18~~.

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